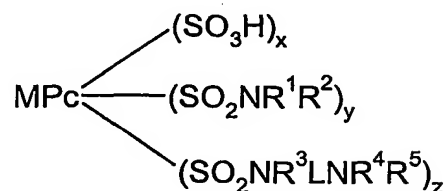


CLAIMS

1. A mixture of phthalocyanine dyes of Formula (1) and salts thereof:

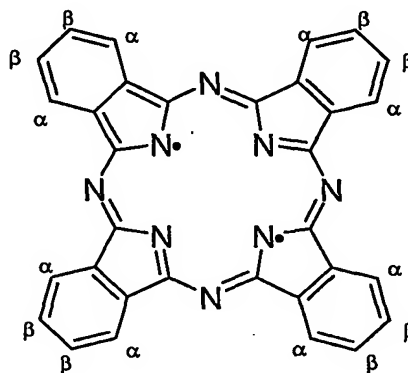


Formula (1)

wherein:

M is Cu or Ni;

Pc represents a phthalocyanine nucleus of formula;



L is optionally substituted  $\text{C}_{1-20}$  alkylene, alkyenylene or alkynylene, optionally interrupted by  $-\text{O}-$ ,  $-\text{NH}-$  or  $-\text{S}-$ ;

$\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$  and  $\text{R}^4$  independently are H or optionally substituted  $\text{C}_{1-4}$ alkyl;

$\text{R}^5$  is H or an optionally substituted hydrocarbyl; or

$\text{R}^4$  and  $\text{R}^5$  together with the nitrogen atom to which they are attached represent an optionally substituted aliphatic or aromatic ring system;

x is 0.1 to 3.8;

y is 0.1 to 3.8;

z is 0.1 to 3.8;

the sum of  $(x+y+z)$  is 4; and

the substituents, represented by x, y and z, are attached only to a  $\beta$ -position on the phthalocyanine ring.

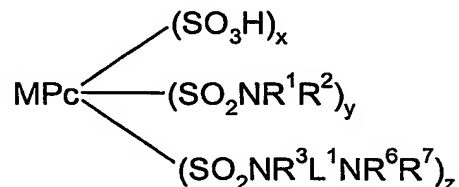
2. A mixture of phthalocyanine dyes according to claim 1 wherein M is Cu.

3. A mixture of phthalocyanine dyes according to either claim 1 or claim 2 wherein x

has a value of 0.5 to 3.5, y has a value of 0.5 to 3.5 and z has a value of 0.5 to 3.5.

4. A mixture of phthalocyanine dyes according to any one of the preceding claims free from fibre reactive groups.

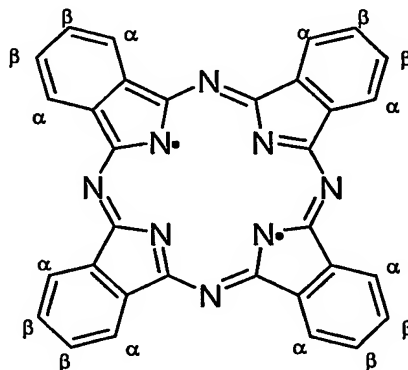
5. A mixture of phthalocyanine dyes according to any one of the preceding claims of Formula (2) and salts thereof:



Formula (2)

wherein:

M      Cu or Ni;  
Pc      represents a phthalocyanine nucleus of formula;



$\text{L}^1$  is optionally substituted  $\text{C}_{1-8}$  alkylene optionally interrupted by  $-\text{O}-$ ,  $-\text{NH}-$  or  $-\text{S}-$ ;

$\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$  and  $\text{R}^6$  independently are H or optionally substituted  $\text{C}_{1-4}$ alkyl;

$\text{R}^7$  is H, optionally substituted aryl, optionally substituted alkyl or optionally heterocyclyl; or

$\text{R}^6$  and  $\text{R}^7$  together with the nitrogen atom to which they are attached represent an optionally substituted 5 or 6 membered aliphatic or aromatic ring;

x is 0.1 to 3.8;

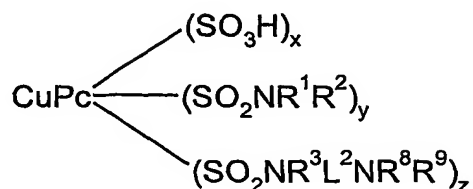
y is 0.1 to 3.8;

z is 0.1 to 3.8;

the sum of  $(x+y+z)$  is 4; and

the substituents, represented by x, y and z, are attached only to a  $\beta$ -position on the phthalocyanine ring.

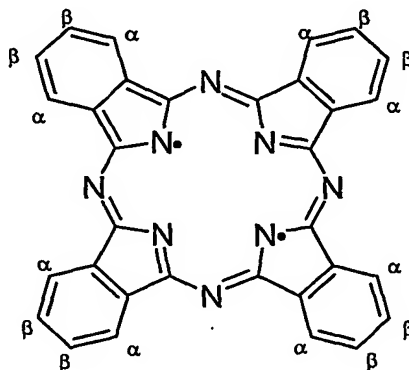
6. A mixture of phthalocyanine dyes according to any one of claims 1 to 4 of Formula (3) and salts thereof:



Formula (3)

wherein:

Pc represents a phthalocyanine nucleus of formula;



$\text{L}^2$  is optionally substituted  $\text{C}_{1-4}$  alkylene;

$\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$  and  $\text{R}^8$  independently are H or methyl;

$\text{R}^9$  is H or phenyl bearing at least one sulfo, carboxy or phosphato substituent and having further optional substituents; or

$\text{R}^8$  and  $\text{R}^9$  together with the nitrogen atom to which they are attached represent an optionally substituted 5- or 6- membered aliphatic or aromatic ring;

$x$  is 0.1 to 3.8;

$y$  is 0.1 to 3.8;

$z$  is 0.1 to 3.8;

the sum of  $(x+y+z)$  is 4; and

the substituents, represented by  $x$ ,  $y$  and  $z$ , are attached only to a  $\beta$ -position on the phthalocyanine ring.

7. A composition comprising a mixture of phthalocyanine dyes according to any one of claims 1 to 7 and a liquid medium.

8. A composition according to claim 7 wherein the liquid media comprises a mixture of water and organic solvent or organic solvent free from water.

9. A composition according to either claim 7 or claim 8 wherein at least 70% by

weight of the total amount of phthalocyanine dye is of Formula (1).

10. A composition according to claim 9 wherein at least 95% by weight of the total amount of phthalocyanine dye is of Formula (1).

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11. A composition according to any one of claims 7 to 10 which is an ink suitable for use in an ink jet printer.

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12. A process for forming an image on a substrate comprising applying an ink according to claim 11 thereto by means of an ink-jet printer.

13. A material printed with a composition according to any one of claims 7 to 11 or a mixture of phthalocyanine dyes as described in any one of claims 1 to 6 or by a process according to claim 12.

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14. An ink-jet printer cartridge comprising a chamber and an ink wherein the ink is in the chamber and the ink is as defined in claim 11.